

Application No.: 10/527,757
Office Action dated: February 9, 2007
Response to Office Action dated: April 25, 2007

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In the Claims:

Claims 1-11 (Canceled)

12. (Previously Presented) Magnetic field sensor comprising a Hall element that has two inner and two outer contacts arranged along a straight line, wherein the two inner contacts are the same width and wherein the two outer contacts are the same width, wherein the contacts are arranged on a surface of a well of a first conductivity type that is embedded in a substrate of a second conductivity type and wherein the two outer contacts are connected by a resistor.

13. (Previously Presented) Magnetic field sensor according to claim 12, wherein the resistor is formed by a well of the first conductivity type.

14. (Previously Presented) Magnetic field sensor according to claim 12, wherein the resistor is formed in the well of the Hall element and has a contact arranged next to one of the two outer contacts of the Hall element on a side facing an adjacent edge of the well.

15. (Previously Presented) Magnetic field sensor according to claim 12, wherein the resistor is formed in the well of the Hall element and has two contacts that are each arranged next to one of the outer contacts of the Hall element on a side facing an adjacent edge of the well, the two contacts of the resistor being connected via a conductor path.

16. (Previously Presented) Magnetic field sensor according to claim 12, wherein at least one electrode electrically insulated from the well is arranged between two contacts.

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17. (Previously Presented) Magnetic field sensor according to claim 13, wherein at least one electrode electrically insulated from the well is arranged between two contacts.

18. (Previously Presented) Magnetic field sensor according to claim 14, wherein at least one electrode electrically insulated from the well is arranged between two contacts.

19. (Previously Presented) Magnetic field sensor according to claim 15, wherein at least one electrode electrically insulated from the well is arranged between two contacts.

20. (Previously Presented) Magnetic field sensor according to claim 12, wherein the contacts are arranged on a surface of a well of a first conductivity type that is embedded in the substrate of the second conductivity type and wherein a doping of the well in an area between the two inner contacts is different to a doping of the well in the areas between an inner contact and an outer contact.

21. (Previously Presented) Magnetic field sensor according to claim 13, wherein the contacts are arranged on a surface of a well of a first conductivity type that is embedded in the substrate of the second conductivity type and wherein a doping of the well in an area between the two inner contacts is different to a doping of the well in the areas between an inner contact and an outer contact.

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22. (Previously Presented) Magnetic field sensor according to claim 14, wherein the contacts are arranged on a surface of a well of a first conductivity type that is embedded in the substrate of the second conductivity type and wherein a doping of the well in an area between the two inner contacts is different to a doping of the well in the areas between an inner contact and an outer contact.

23. (Previously Presented) Magnetic field sensor according to claim 15, wherein the contacts are arranged on a surface of a well of a first conductivity type that is embedded in the substrate of the second conductivity type and wherein a doping of the well in an area between the two inner contacts is different to a doping of the well in the areas between an inner contact and an outer contact.

24. (Previously Presented) Magnetic field sensor comprising a Hall element that has two inner and two outer contacts arranged along a straight line, wherein the two inner contacts are the same width and wherein the two outer contacts are the same width, wherein the contacts are arranged on a surface of a well of a first conductivity type that is embedded in a substrate of a second conductivity type and wherein at least one electrode electrically insulated from the well is arranged between two contacts.

25. (Previously Presented) Magnetic field sensor comprising a Hall element that has two inner and two outer contacts arranged along a straight line, wherein the two inner contacts are the same width and wherein the two outer contacts are the same width, wherein the contacts are arranged on a surface of a well of a first conductivity type that is embedded in a substrate of a second conductivity type and wherein a doping of the well in an area between the two inner contacts is different to a doping of the well in the areas between an inner contact and an outer contact.

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26. (Previously Presented) Magnetic field sensor comprising a first Hall element and a second Hall element that each have two inner and two outer contacts arranged along a straight line, wherein the two inner contacts are the same width and wherein the two outer contacts are the same width, wherein the contacts of the first Hall element are arranged on a surface of a first well of a first conductivity type that is embedded in a substrate of a second conductivity type, wherein the two outer contacts of the first Hall element are connected via a first resistor, wherein the contacts of the second Hall element are arranged on a surface of a second well of the first conductivity type that is embedded in the substrate, wherein the two outer contacts of the second Hall element are connected via a second resistor, wherein the straight lines of both Hall elements run in parallel and wherein the contacts of the two Hall elements are wired via conductor paths in such a way that the Hall voltages of the two Hall elements are equidirectional.